

Application Number 10/539188
Response to the Office Action dated October 10, 2008

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks.

Claim 11 has been amended to be in an independent form and should be allowable. Claim 12 is allowed.

Claims 1-10 and 13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Dingwen et al. (Japanese Patent Announcement No. S45-17402, Patent No. 592,324) in view of Kato et al. (U.S. Patent No. 4,874,890). Applicants respectfully traverse this rejection.

Dingwen discloses a deuteration process in the presence of D_2O , alkaline metal deuteroxide ($NaOD$), a reduced Adams catalyst ($PtO_2 \cdot H_2O$), and D_2O_2 (see coln. 2, lines 4-19 and tables 1-3). Due to the presence of alkaline metal deuteroxide such as $NaOD$, the deuteration reaction of Dingwen is carried out under a basic condition. In contrast, claim 1 requires a neutral condition of the deuteration. By carrying out the reaction under the neutral condition, a substrate, which is easily decomposed under the basic condition, can be deuterated by the method of claim 1 (see page 26, lines 8-13 of the specification). This result is not expected by Dingwen, and the difference between the method of Dingwen and that of claim 1 is evident in the Declaration of Mr. Nobuhiro ITO attached hereto. When a substrate is reacted with D_2O under a basic condition in the presence of an activated catalyst like that in the method of Dingwen, the substrate is decomposed, and a gel-like product is formed (see Result at page 2 of the Declaration). In contrast, with the method of claim 1, the same substrate is deuterated efficiently (see example 4 in table 1 at page 29). Accordingly, claim 1 is distinguished from Dingwen.

The Examiner refers to Kato for its disclosure of using D_2 gas as a source of deuterium (see coln. 2, lines 5-9). However, claim 1 of the present application requires a deuterated solvent as the source. Therefore, there is no reasonable basis to combine Dingwen and Kato. Even if the method of Dingwen used D_2 gas instead of D_2O , the

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method of claim 1 using D₂O shows high yield of deuteration, but the reaction using D₂ gas like the combination of Dingwen and Kato reduces the carbon - carbon double bond of the substrate (see example 32 in table 3 at page 31 and comparative example 2 at page 32, lines 8-14 of the specification). Accordingly, claim 1 is distinguished from Dingwen in view of Kato, and this rejection should be withdrawn. Applicants do not concede the correctness of the rejection.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.



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DPM/my/ad

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